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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,658	07/02/2003	Michael P. Galligan	4576/4581A	5534

7590 07/01/2004

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EXAMINER

NGUYEN, NGOC YEN M

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,658

Applicant(s)

GALLIGAN ET AL.

Examiner

Ngoc-Yen M. Nguyen

Art Unit

1754

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 13 (depending on claim 6) rejected under 35 U.S.C. 103(a) as being unpatentable over Gebelius (4,920,746) in view of Tonkovich et al (6,479,428), optionally further in view of either Kudo (4,305,910) or EP 0 831 211.

Gebelius '746 discloses an exhaust system for a combustion engine comprising a longitudinally extending tubular member and an air permeable sound damping insert inside the tubular member which extends along the length of the tubular member (note claim 1). The insert includes an exhaust fume purifying catalyst (note claim 2). The insert may comprise of a longitudinally extending member of cushion-shaped parts of a woven threadshaped material having elastic properties, which surround bodies having spherical, tubular or any other desired configuration, and this also includes bodies having one or several through holes, bodies having a porous structure, and bodies formed from threadshaped material. Such bodies can be ceramic material or metallic materials (note column 3, lines 38-52). This fairly suggest a "tubular" and perforated insert.

The difference is Gebelius '746 does not disclose an anchor layer.

Tonkovich '428 discloses a catalyst comprising a porous metal foam support, an interfacial layer, and a buffer layer between the porous support and the interfacial layer (note claim 1). The buffer layer provides a transition of thermal expansion coefficient from the porous support to the interfacial layer thereby reducing thermal expansion stress as the catalyst is heated to high operating temperatures. The buffer layer also reduces corrosion and oxidation of the porous support.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made include a buffer layer and an interfacial layer for the insert of Gebelius '746, as suggested by Tonkovich '428 because of the advantages as stated above.

Optionally, in case Gebelius '746 does not sufficiently disclose that the insert comprises a tube, Kudo '910 or EP 211 can be applied as stated below.

Kudo '910 discloses a catalytic reactor for reducing nitrogen oxide using tubular catalyst (note claim 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to form the carrier as disclosed in Gebelius '746 into tubular shape as suggested by Kudo '910 because such shape is desired for the process of reducing nitrogen oxide.


Alternatively, EP '211 can be applied to teach that catalytic metal bearing member is desired to have tubular, corrugated shape (note item 22 in Figure 7).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (571) 272-1356. The examiner is currently on Part time schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stan Silverman can be reached on (571) 272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed (571) 272-1700.


Ngoc-Yen M. Nguyen
Primary Examiner
Art Unit 1754

nmn
June 28, 2004